



**US Army Corps  
of Engineers**  
North Central Division

# GREAT LAKES LEVELS UPDATE, NO. 1

**3 AUGUST 1985**

Of all the Great Lakes, only Lakes Superior and Ontario have structures to control their outflows. Because man has no control of the inflow to these lakes, they are not controlled, but rather can only be modified, to some extent, from the levels that would exist under natural conditions. There are no means to control the outflows of the other lakes. Precipitation, or the lack of it, is the main cause of long-term extreme fluctuations in lake levels. The current problem was aggravated by above-average precipitation from last Fall through early Spring, particularly for Lakes Michigan-Huron, St. Clair, and Erie which already had above average levels. As a result, record high water levels were established in April and May 1985 on Lakes Michigan-Huron, St. Clair, and Erie. Commencing in April, below average precipitation resulted in a turn around of the rise in levels causing the lakes to fall below their record highs in June and July. Nevertheless, the lakes still remain extremely high.

The enclosed bulletin shows our projected levels for the period 1 August 1985 through 31 January 1986. Lakes Michigan-Huron, St. Clair, and Erie are still extremely high and are predicted to remain so for at least the next six months. Lake Superior is about 3/4-foot above average and is expected to approach its record highs this Fall. Lake Ontario, on the other hand, is only about six inches above normal for this time of year and is expected to fall to its normal levels for November and December.

The purpose of this update is to inform you of emergency actions taken to date by the International Joint Commission (IJC) and others to provide relief to Lakes Michigan-Huron, St. Clair, and Erie.

An initial action was the IJC's decision in late April to reduce Lake Superior outflows by about 30 percent below the flows prescribed by Plan 1977, the regulation plan for Lake Superior. The reduction began on 2 May and is scheduled to continue through October. By October and November, this modification of the Lake Superior outflow will have lowered Lakes Michigan-Huron, St. Clair, and Erie by 3.5, 2.4, and 1.7 inches, respectively, below the levels that would exist if Lake Superior outflows were regulated in strict accordance with Plan 1977. During this period, Lake Superior levels will increase by 4.7 inches.

By the end of July, the status of the IJC's emergency action is as follows:

<u>Lake</u>	<u>Effect</u>
Superior	Up 3.4 inches
Michigan-Huron	Down 2.2 inches
St. Clair	Down 1.2 inches
Erie	Down 0.5 inch

A further action stemmed from the U. S. State Department's request to Canada to reduce the Ogoki Diversion into Lake Superior. This diversion in combination with the Long Lac Diversion normally flows at a rate of about 5,600 cubic feet per second (CFS). The Ogoki Diversion has been reduced by about 4,000 cfs since 28 June 1985.

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In addition, the Corps of Engineers' Detroit and Buffalo Districts are pursuing a program for providing flood protection measures with the States of Michigan and Ohio. Potential flooding problems exist primarily along the shores of Lake Erie, the Detroit River, and Lake St. Clair. There are seven projects in Michigan that are under consideration for construction. They are: Luna Pier, Erie Township, Monroe, Frenchtown Township, Estral Beach, Berlin Township, and Brownstown Township. Projects at three other locations are undecided at this time. All other potential locations have declined participation in the program. In Ohio, eight projects are under consideration. This program started later and construction starts will not be possible before September. In both States, protection measures will be constructed before November of this year where possible.

For Great Lakes Basin technical assistance or information, please contact one of the following Corps of Engineers District offices:

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(3) States of Illinois and Indiana  
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These updates will be continued for the next few months to provide additional information on the actions being taken to help alleviate high water level conditions and to provide flood protection.



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